

AMENDMENTS TO THE CLAIMS

Please amend Claim 1 and add new Claims 10-12 as follows.

LISTING OF CLAIMS

1. (currently amended) A mold for molding a metallic product ~~comprising a fixed mold section and a movable mold section defining a cavity, when the both are closed together, to be filled with molded metal wherein, the mold comprising:~~

a fixed mold defining a fixed cavity, the fixed cavity defining a first portion of the metallic product;

a movable mold defining a movable cavity, the movable cavity defining a second portion of the metallic product, the movable mold being movable with respect to the fixed mold to allow removal of the metallic product;

the fixed mold section is provided with only heating means and the movable mold section is provided with only cooling means, both of which means ~~[[are]]~~ being controlled by temperature control means, respectively, so that temperature variations of the fixed and movable mold sections are individually controllable;

the fixed mold section is disposed on ~~[[the]]~~ an injection side of molten metal to be molded; and

the temperature control means controls the temperature of the movable mold section in a range from a solidifying point of the molten metal to 0°C when the mold is open and controls the temperature of the fixed mold section higher than the temperature of the movable mold section when the mold is open.

2. (previously presented) A mold for molding a metallic product as defined by claim 1, wherein ejector pins for releasing a molded metallic product from the movable mold section are provided in the movable mold section.

3. (previously presented) A mold for molding a metallic product as defined by claim 1, wherein the temperature of the fixed mold section rises to a value in a range from 300 to 700 °C.

4. (cancelled)

5. (previously presented) A mold for molding a metallic product as defined by claim 1, wherein the temperature control means controls the temperatures of the movable mold section and the fixed mold section such that the temperature of the fixed mold section reaches a predetermined highest value and that of movable mold section reaches a predetermined lower value when the molten metal is injected into the cavity, and the temperature of the mold falls to a value at which the molded metallic product is releasable from the mold when opening the mold.

6. (previously presented) A mold for molding a metallic product as defined by claim 5, wherein the temperature control means repeats the sequence of the temperature control.

7. (previously presented) A mold for molding a metallic product as defined by claim 1, wherein the temperature control means

(1) heats the fixed mold section by the heating means and cools the movable mold section by the cooling means when the mold is open,

(2) enables the mold to be closed during the heating of the fixed mold section and the cooling of the movable mold section,

(3) heats the fixed mold section by the heating means and cools the movable mold section by the cooling means even after the mold has been closed,

(4) enables the molten metal to be injected into the cavity when the temperature of the fixed mold section has reached the predetermined highest value and that of the movable mod section has reached the predetermined lowest value,

(5) continues the cooling of the movable mold section and enables the mold to be opened when the mold temperature falls to the value at which the molded metallic product is releasable from the mold, and

(6) enables the molded metallic product to be removed from the mold.

8. (previously presented) A mold for molding a metallic product as defined by claim 7, wherein the temperature control means repeats the sequence of the temperature control.

9. (previously presented) A mold for molding a metallic product as defined by claim 1, wherein the fixed mold section is in direct contact with the movable mold section when the mold is closed.

10. (new) A mold for molding a metallic product as defined by Claim 1, wherein the temperature control means controls the temperature of the fixed mold section to allow the metallic product to be released from the mold when the mold is closed.

11. (new) A mold for molding a metallic product, the mold comprising:
a stationary mold disposed on an injection side of molten metal to be molded;

means for increasing the temperature of the stationary mold, the temperature increasing means being the only temperature control device associated with the stationary mold;

a movable mold movable with respect to the stationary mold;

means for decreasing the temperature of the movable mold, the temperature decreasing means being the only temperature control device associated with the movable mold;

means for controlling the temperature increasing means and the temperature decreasing means such that the movable mold is maintained at a temperature between a solidifying point of the molten metal to 0°C when the mold is open and the stationary mold is maintained at a temperature higher than the temperature of the moveable mold.

12. (new) A mold for a metallic product according to Claim 11, wherein the controlling means controls the temperature increasing means to allow the metallic product to be released from the mold when the mold is closed.